NASA'S MISSION TO PLANET EARTH

EARTH PROBES

DATA INFORMATION SYSTEM

EOS

EARTH OBSERVING SYSTEM

Advertising Service CSCI

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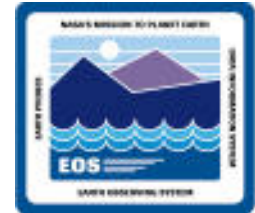
CSCI Software Architecture Overview
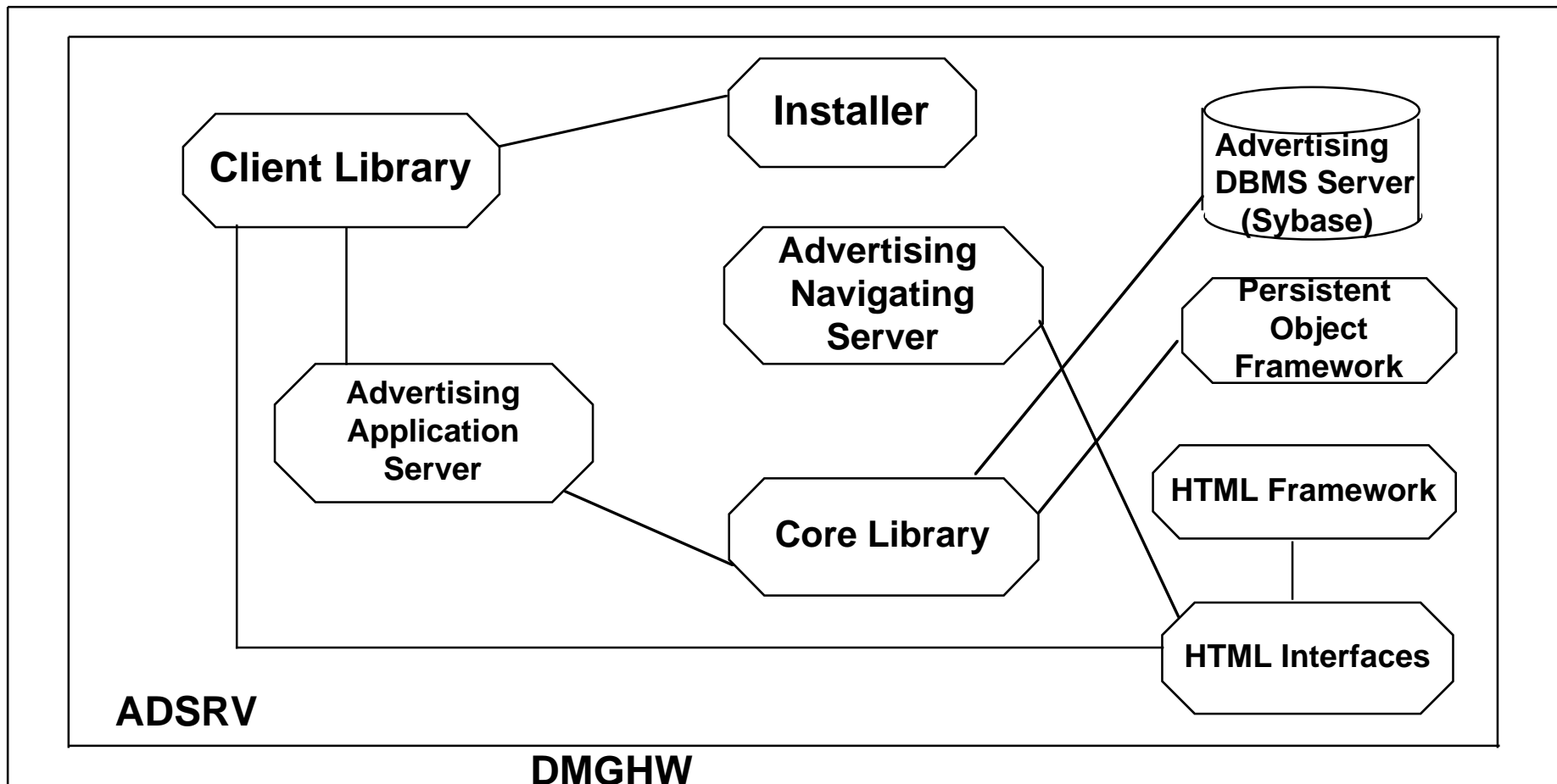
New Release B Feature - Subscriptions

- **Subscriptions on:**
    - **Inserts of new ads**
    - **Updates to existing ads**
    - **Deletions of existing ads**

- **Used by:**
    - **PLS, DPS to inform them to update their cache**
    - **Moderators to get email notification**
    - **Any user looking for new data or services**

New Release B Feature - Data Dictionary Interface

Advertising
(Netscape: Product Display)

North America, 1 km AVHRR 10 - day composite NDVI (ID:16)
   10-day compose of normalized difference vegetartion
   index (NDVI) determined from 1 km AVHRR
   observation for North America, using the global
   interrupted Goode's homolosine projection (2 regions)
Guide URL
   http://sun1.cr.usgs.gov/landdaac/1 KM/1 kmhomepage.html
Date Submitted
   01/22/96
Group
   TBD
Contact
   Eidenshink, J.C. EDC DAAC User Service. ID:8
Copyright
   none
Provider
   Eidenshink, J.C.

. . .

Collection ID
   1 Km NDVI   [Def]

Sensors:
   AVHRR   [Def]

[Home]   [Search]   [Submit Ad]   [Help]
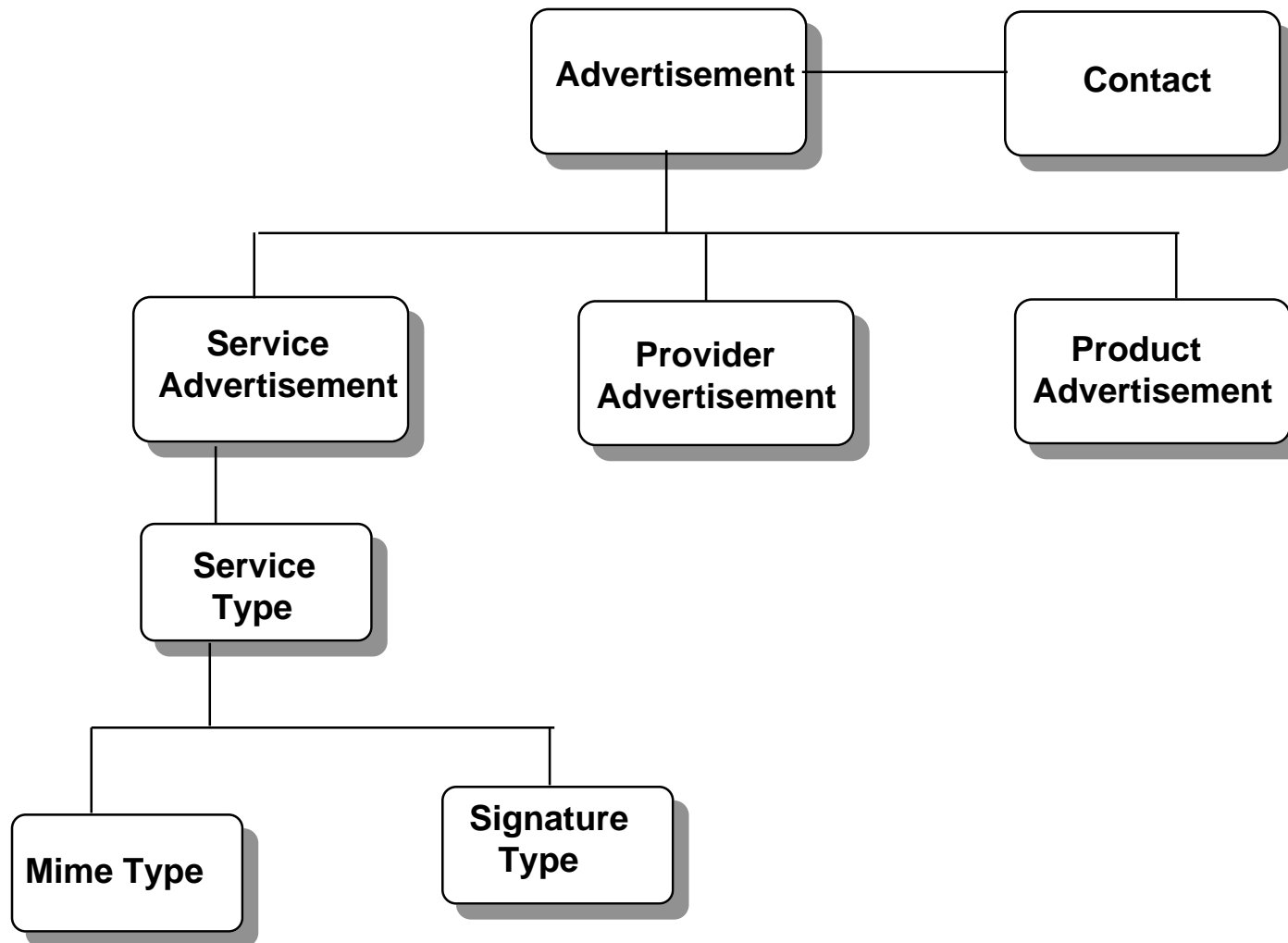
Data Dictionary (Netscape)

Instrument Link Information

▶**AVHRR -**- Advanced Very High Resolution Radiometer
   Several generations of AVHRR have flown on the
   NOAA series of satellites. The even numbered
   satellites (NOAA-6,-8,-10) have daylight (7:30 am)
   north-to-south equatorial crossing times and the odd-
   numbered satellites (NOAA-7,-9,-11) have nighttime
   (2:30 am) north-to-south equatorial crossing times.
   Coverage is acquired at a nadir resolution of 1.1 km .
   This resolution becomes coarser with increases in
   the viewing angle off nadir. AVHRR scan angle from
   nadir is +/- 55.4 degrees and has a swath width of
   2400 km. NOAA satellites provide daily (visible) and
   twice-daily (thermal IR) coverage.
   NOAA receives AVHRR data at full resolution and
   archives them in two different forms. Selected data
   are recorded at full resolution, referred to as local
   area coverage (LAC) data. All of the data are
   sampled down to a nominal resolution of 4 km,
   referred to as global area coverage (GAC) data.

Collection Type	Operational Modes	Sensor Method	det FOV (??) Resolution
imager	continuous	passive radiometer	Ch1:1.39; Ch2&4:1.4; Ch3:1.51; Ch5:1.30
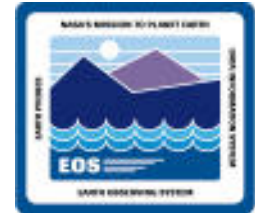
Service Advertisement Model

```
                    ┌─────────────────┐          ┌─────────────────┐
                    │  Advertisement  │──────────│    Contact      │
                    └─────────────────┘          └─────────────────┘
                             │
          ┌──────────────────┼──────────────────┐
          │                  │                  │
┌─────────────────┐ ┌─────────────────┐ ┌─────────────────┐
│     Service     │ │    Provider     │ │     Product     │
│  Advertisement  │ │  Advertisement  │ │  Advertisement  │
└─────────────────┘ └─────────────────┘ └─────────────────┘
          │
┌─────────────────┐
│     Service     │
│      Type       │
└─────────────────┘
          │
    ┌─────┴─────────────┐
┌─────────────────┐ ┌─────────────────┐
│   Mime Type     │ │   Signature     │
│                 │ │      Type       │
└─────────────────┘ └─────────────────┘
```

Advertising Database Design

Handouts at meeting will show Advertising Database Object Model.

Object Model

the following object models will be reviewed:

Diagram Name	Document Reference
Persistent Framework (EcPoPersist)	305-CD-022-002, p. 4-2
Advertisement Base (IoAdAdvHandles)	305-CD-022-002, p. 4-3
Handles (IoAdHandles)	305-CD-022-002, p. 4-4
Search Interface (IoAdSearchCommand)	305-CD-022-002, p. 4-5
Service Advertisements (IoAdServiceHandles)	305-CD-022-002, p. 4-6

Dynamic Model

the following event traces will be reviewed:

Event Trace Name	Diagram Name
Advertisement submission (Service)*	SUBMIT_SERVICE_AD_SP61_B
Advertisment retrieval (Service)*	RETRIEVE_SERVICE_UR_SP48_B
ADSRV Installer	

* Reference: 313-CD-006-002 (Sect. 4.2.25 & 4.2.38)

Submit Service Advertisement

Scenario

- **This scenario demonstrates how to submit a Service advertisement to the ADSRV.**

Assumptions/ Preconditions

- **Precondition: User filled out web page and selected the "submit" icon.**

- **Assumption: Represents a successful submission.**

Functional Description

- **An IoAdProvider object is created to acquire the provider for the service from the database.**

- **An IoAdContact object is created to provide information about the contact person/organization who is responsible for this Service advertisement.**

- **An IoAdService object is created in which information, such as ServiceClass, ServiceName, ServiceTypeId, is submitted to it.**

- **A status from the GetStatus method is returned to describe whether the operation completed without error, then the ad is submitted.**

Retrieve Service Universal Reference

Scenario

- **This scenario illustrates how an application accesses the ADSRV to obtain the service URs from the SDSRVs involved in the information request.**

Assumptions/ Preconditions

- **Precondition: User filled out web page and selected the "search" icon.**
- **Assumption: Represents a successful search.**

Functional Description

- **User initiates a search for products.**
- **Found products are appended to the current results set.**
- **Retrieve the providers for the products found.**
- **Iterate through the list of products to check whether a certain product is at the current DAAC.**
- **Get all the services for this product.**
- **Iterate through the services to check if a certain service is the Data Server Service.**
- **Return the service's UR to the user.**

ADSRV Installer

Scenario

- **This scenario demonstrates how to install an installable service.**

Assumptions/ Preconditions

- **The installer has to be on the local workstation.**

Functional Description

- **Client invokes the installer.**

- **The installer retrieves and gets signature of the service advertisement.**

- **The installer retrieves the list of required software for the service.**

- **The installer retrieves the UR for the location of the software component.**

- **The installer creates desktop object.**

Advertisement Installation High Level Event Trace